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ABSTRACT

A bilingual program, thought to be the first of its kind in the United States, is described in this report. Forty-five non-English-speaking Puerto Rican students participated in a two-year project designed to enable them to enter and compete favorably in regular classes held in English and leading to an associate degree at Bronx Community College. The purpose and objectives of the program, recruitment procedures (student body and staff), structure of the program, and student progress after the first year are described. Observations and recommendations regarding the 1968-69 program are spelled out. Other considerations, including plans for program expansion, are noted. A design for evaluation of the program details tests administered to the students. Statistical analyses of the tabulated examination results accompany student profile breakdown charts. The financial report covering the period from July 1, 1968 through June 30, 1969 is included. (RL)

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BRONX COMMUNITY COLLEGE
OF THE CITY UNIVERSITY OF NEW YORK
120 East 184th Street
Bronx, New York 10468

ANNUAL REPORT

BILINGUAL PROGRAM

of the

BRONX COMMUNITY COLLEGE

Submitted to

FORD FOUNDATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Period Covered:

August 20, 1968 to August 31, 1969

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BRONX COMMUNITY COLLEGE
Of The City University of New York

BILINGUAL PROGRAM

This report was prepared by the Director of the Bilingual Program, Professor Carmen M. Torres, in cooperation with the Bilingual staff, following advisement from Mr. Max Horn, Assistant to the President, Bronx Community College, and Dr. Norman Eagle, Coordinator of Institutional Research, Bronx Community College.

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BRONX COMMUNITY COLLEGE
Of The City University of New York

BILINGUAL PROGRAM

Period Covered: August 20, 1968 - August 31, 1969

A C K N O W L E D G E M E N T S

The Bilingual Program, a pioneer program in the City University of New York, and to our knowledge, first of its kind in the United States, has been the result of an effective working relationship between various groups, organizations, and individuals. Among these are:

Prof. Carmen M. Torres	-	Project Director
Dr. James A. Colston	-	President, Bronx Community College City University of New York
Dr. Albert Bowker	-	Chancellor, City University of New York
Dean Bernard P. Corbman	-	Dean of Faculty, Bronx Community College (Internal and External Liaison for Bilingual Program)
Dean Martin G. Moed	-	Associate Dean for Community College Affairs, City University of New York
Dr. Leonard T. Kreisman	-	Director, College Discovery Program City University of New York
Mr. Max Horn	-	Assistant to the President, Bronx Community College
Dr. Norman Eagle	-	Coordinator of Institutional Research Bronx Community College
The Bilingual Program Staff	-	Mrs. Margarita Batista Miss Gail Moerman Mr. Luis Pinto Miss Frances Shapiro Mrs. Ruth Stephenson Mrs. Maria D. Taracido Mr. Israel Vizcaino

Manpower Career Development Agency
Aspira
Puerto Rican Community Development Project
Commonwealth of Puerto Rico
Mobilization for Youth
El Diario - La Prensa
Radio W A D O
The Bilingual Program Advisory Committee: Mrs. Amalia Betanzos
Mr. Luis Cardona
Mr. Emmanuel Diaz
Mrs. Carmen Dinos
Mr. Joseph Morales
Mr. Frank Negron
Mr. Luis Nunez
Mr. Julian Rivera

Consultants - Mrs. Carmen Dinos and Miss Ana Centalla

The Bilingual Program owes a large debt of gratitude to the Ford Foundation and its representatives Mitchell Sviridoff, Siobhan Oppenheimer, and Mike Miller, and the City University of New York. Their contribution of funds and technical assistance were basic to the establishment and the accomplishments of the program.

BRONX COMMUNITY COLLEGE
Of The City University of New York

BILINGUAL PROGRAM

Summary of Report

Forty-five students holding a valid Puerto Rican (or equivalent) diploma and who were non-English speaking, were selected from among 125 students recommended by various community organizations.

Students were grouped into three levels, depending on the degree of their aural comprehension, as determined by appropriate testing. A teacher, trained in instructing English as a foreign, or second, language, was provided for each group. Tutoring was also provided.

The major emphasis of the program was on production and comprehension of spoken English, as well as on the reading and writing of standard English. Instruction was highly individualized. Curriculum materials and lessons were tailored to each student's needs. Extensive use was made of specially prepared materials, and audio and visual aids. The college's language laboratory facility was utilized in the program, with special materials prepared by the staff.

Students were also given intensive personal, financial, educational, and vocational counseling by an experienced Puerto Rican-American counselor. A comprehensive, extra-curricular cultural orientation program was offered so that students could develop confidence in their ability to deal with an unfamiliar and "foreign-speaking" environment.

The major findings of this experimental-demonstration program are as follows:

1) Eighty percent of the Fall 1968 entering group of students are expected to achieve the goal of developing an English proficiency, at the end of two years, sufficient to enable them to pursue studies leading to an Associate degree in any one of the college's curricula. Even before the end of the first year, some students were taking some of these

related courses, and more will be enrolled during their second year. Five students have moved out of the Program and into a mono-lingual (English) college curriculum.

2) It is expected that all students will be able to earn one full year's credit toward an Associate degree, by the end of the two-year period. A few students may possibly complete all requirements for a two-year degree in about three years.

3) It has been learned that some students who originally enroll for the purpose of acquiring an Associate of Arts (transfer) degree, later turn their attention to career programs, with resultant loss of credit.

4) Certain requirements for the Associate of Arts degree, particularly in the areas of English and Mathematics, for which a considerable degree of English fluency is required, may make it difficult for most students to acquire this degree in three years or less.

5) Course offerings are restricted by the unavailability of instructors qualified to teach the academic subjects in Spanish, and by the small number of students with identified career goals, making it impractical to offer any of the specialized vocational courses. Students are not sufficiently fluent in English to take these courses taught in English.

6) Moderate to high correlations have been obtained between (Spanish) Scholastic Aptitude Test scores, both Verbal and Mathematics, and such end of year criteria as Aural Comprehension, English Structure, and scholastic index. There is, therefore, the possibility that the selection procedure can be made more efficient through the knowledge of the relationships suggested by these correlations.

7) Even with manifold cultural, social, and financial problems students can, when appropriate instructional and supportive services (particularly financial) are provided, succeed in a challenging educational program. Without these supportive services, many potentially successful students will be condemned to educational frustration.

8) Profiting from our experience of the first year, the program will be changed in several ways. A smaller student-teacher ratio will be in effect, the schedule of English instruction will be made more flexible, and more individual attention will be given to each student by teachers and counselors.

Based on the experience of the initial year, entrance requirements were modified, mainly in the direction of raising entering English proficiency standards and the score on the (Spanish) Scholastic Aptitude Test.

The demand for admission to the Bilingual Program has been overwhelming. In the Spring and Summer of 1969, over three hundred students applied for admission to the program for the 1969-70 academic year. One hundred eighty students appeared for testing, and forty-five students were again selected for admission. Many potentially successful students have had to be turned away because they could not be accommodated.

A design for the overall evaluation of the progress of both the two-year and the one-year group of students is provided.

I. PURPOSE AND OBJECTIVES

A. The Need

There are over 700,000 Puerto Ricans living in New York City, the majority of whom are in the lower socio-economic groups within the City. Although economic advancement is often a primary motive for migration, the newly-arrived Puerto Rican frequently discovers that the levels of employment open to him are at the lowest end of the scale. Whereas previous immigrant groups appear to have faced similar problems of language and opportunity, the pace and scope of the technological revolution in the urban setting appears to have provided another dimension to the orientation and acclimitization of minority, non-English speaking Americans.

The newly arrived migrant, forced to support himself and/or his family in a low-paying job, often seeks security in a "Spanish only" ghetto, accepting the fact that "educational opportunities" are not open to him. In fact, due to his inability to communicate adequately in English, the door to continued education is, for all practical purposes, closed. Furthermore, "cultural displacement" increases the dangers of psychological and social maladjustment for the Puerto Rican in New York City. Any attempt to increase the educational opportunities (and therefore, the career opportunities) for New York's Puerto Rican population must fully recognize the dangers of negating the Puerto Rican language and culture. Yet, it is a fact of life that the Puerto Rican, to live and work in New York City, must become a part of the City's life and culture - and must speak its language.

Students educated in Puerto Rico may, if they have adequate ability in English (ascertained through high school English courses and teacher evaluations), enroll in most colleges and universities. Evaluation of their high school preparation is often performed by the International Education Relations Branch of the Office of Education; within the City University, such students may apply directly to one of the colleges rather than through the University's normal admissions channels. Yet a sampling of three of the University's community colleges[1] indicated that only two students with Puerto Rican high school diplomas were enrolled in the Fall of 1967.

Although the exact number of residents with valid Puerto Rican high school diplomas cannot be ascertained, it appears that there is an unfilled need, as expressed by antipoverty programs and Puerto Rican community agencies in New York City. A survey of 1781 case files from the Commonwealth of Puerto Rico's New York Office and from Mobilization for Youth showed that 317 (17.8%) of those coming in "off the street" for assistance during the last year had received a high school diploma in Puerto Rico and did not speak English. Within the past six months over 900 students have passed the General Educational Development (G.E.D. or high school equivalency) test in Spanish under a program offered by the Puerto Rican Community Development Project in New York City. For these students and for the hundreds more like them throughout New York City, a bilingual educational program can provide both the opportunity to learn English and to receive college-level instruction in their native language.

B. Justification for Placement of Bilingual Program in Bronx Community College

Given the City University's commitment to provide educational and training services for increasing numbers of the City's residents,

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[1]Bronx Community College, Staten Island Community College and New York City Community College.

the University planned to establish an experimental, totally bilingual program for forty-five Spanish-speaking Puerto Rican high school graduates. Such a program was to combine instruction in English with college instruction in Spanish, for college credit.

The City University arranged a meeting among Puerto Rican Community leaders who were to serve as an advisory committee to help structure a proposal for a Bilingual Program at the college level. The group discussed the needs for the program, helped structure the proposal, and took steps to find funds to initiate the program.

The Ford Foundation arranged to have three representatives meet with members of the advisory committee, Dean Martin G. Moed, Associate Dean for Community College Affairs and Dr. Bernard P. Corbman, Dean of Faculty, Bronx Community College. The meeting was very successful and a Bilingual Program, sponsored by the Ford Foundation and the City University of New York, was initiated in the Fall of 1968 at Bronx Community College.

Bronx Community College, on the basis of its location in an area of Spanish-speaking population, and its interest over a period of time in serving the needs of Spanish-speaking students, readily volunteered participation.

C. <u>Objectives of the Bilingual Program</u>

The primary goals of the program, taken from the original proposal, are:

1) To develop an English language facility, at the end of two years, which will enable students to reasonably compete with the English speaking students in regular college courses.

2) To enable students to earn one full year of transferable college credit in the given two year period.

The purpose of the Bilingual Program, as it was originally projected, was to prepare students to pursue higher education leading toward a college degree. Counseling during the program was intended to make the students aware of the differing academic requirements for various college programs so as to insure that the courses taken in English (during the second year) will be appropriate to the students' ultimate choice of curricula. Students completing the transfer program will be eligible for transfer to a City University senior (four-year) college under the same regulations which apply to all community college students.

II. RECRUITMENT

A. Student Body

1) Procedure

The major requirement for entry into the program was possession of a valid Puerto Rican general (academic) diploma or a valid high school equivalency diploma earned in Spanish. No further reading proficiency in English or Spanish was required, beyond that assumed necessary for high school graduation, although appropriate reading levels for such instruction were investigated during the course of the program through the systematic observation of students' English ability.

Given the experimental nature of the program and its limited size, recruitment procedures were designed to guard against the danger of "over-selling" the program. Five cooperating agencies (ASPIRA, Manpower Career Development Agency, Commonwealth of Puerto Rico, Puerto Rican Community Development Project, and Mobilization for Youth) each recruited candidates for the program, giving a pool of 125 from which the 45 participating students and five alternates were chosen. Recruitment efforts concentrated on identifying candidates who were between 18 and 28 years of age, thus facilitating integration of the program participants into the regular activities of Bronx Community College.

Following recruitment by the cooperating agencies of these 125 candidates and assurance that all candidates met the criteria specified above, all candidates were interviewed by the Director. The interview was used to (1) assess motivation and background, (2) allow discussion of the program so that the candidate understood the commitment and implications of a decision to enter the program, and (3) screen out candidates whose

knowledge of English was such that they might better benefit from other university programs such as S.E.E. K. or College Discovery, which offer educational opportunities to English-speaking students from disadvantaged backgrounds.

The remaining candidates were administered the "Prueba de Aptitud Academica," a Spanish-language aptitude test designed specifically for Spanish-speaking students. Of those taking the test, 45 students were admitted to the program, while five became alternates. Those taking the test, but not gaining admittance to the program--a maximum of 65 students, were advised of other programs available to them and referrals were made.

2) Criteria for Selection

The 45 students were selected on the basis of:

1. Having a Puerto Rican high school diploma.
2. Having completed an application form accompanied by transcripts and all supporting data.
3. Being between the ages of 18 and 28 years.
4. Having no, or very few, college credits.
5. Having poor English fluency as determined by a short oral interview.

After having met these six requirements, students were then selected in rank order of their combined SAT scores. Forty-five students participated in the first experimental program, with fifteen students in each "track," depending on the results of diagnostic tests administered during the screening process.

3) Student Profile - Attached as Table I.

The distributions of scores or measurements on nine student entry variables are given in Table I.

B. Staffing:

1) Director

The Program's Director, Professor Carmen M. Torres, is in charge of the overall administration and supervision of the program. She provides liaison within Bronx Community College through the office of the Dean of Faculty. She is bilingual, shares the same cultural background as the students, and is trained in the field of English as a second language. Her training, added to her previous experience as a school teacher, supervisor, and school community liaison worker in Puerto Rico and in the New York City schools, have been assets in providing general leadership to the program's development.

2) English as a Second Language

Recruitment of the Blingual Program staff was a signicant aspect of the administration of the project. The program's projected structure required three instructors of English as a second language, one for each track of fifteen students. Qualifications for instructors were carefully delineated, and candidates were interviewed and screened.

Qualifications for instructors called for graduate training in the teaching of English as a second language, and experience in teaching. In addition, instructors had to evidence commitment to the goals of the program and dynamic teaching ability. A desired qualification was experience with Puerto Ricans. As a matter of more general policy, it was felt that

Table I

STUDENT CHARACTERISTICS AT PROGRAM ENTRY (Student Profile)
(27 Males - 28 Females)

Characteristic	Low Score	1st Quartile 25th %ile	Median 50th %ile	3rd Quartile 75th %ile	High Score
S.A.T. (V)	274	416	483	558	683
S.A.T. (M)	355	439	491	523	691
S.A.T. (Average)	315	435	482	529	637
Aural Comprehenshion (Raw Score)	12	23	32	37	46
English Structure (Raw Score)	47	70	90	115	131
High School Average (Index)	1.00	2.06	2.40	2.69	3.53
Months in U.S.	0	3	5	16	48
Months since graduation	0	5	15	39	123
Age	17	19	20	22	36 1 student

School Attended in Puerto Rico

Rural	13
Small City	15
Large City	14

Family Living Arrangement

Married	9
Live with others	27
Live alone	9

instructors should be people whose life experiences would enable them to understand the students. However, since the pool of individuals with these qualifications is not large, and since there was an immediate need to start classes along with the other programs at Bronx Community College, we could not do intensive recruitment in order to select individuals to meet all these qualifications.

In addition, since this is an experimental program, it was decided that a person was needed to assist in the preparation of special curriculum materials and laboratory tapes.

Staff Hired:

1) Maria D. Taracido - M.A. candidate. Specialization - English. Experience teaching - three years.

2) Frances Shapiro - M.A. Specialization - Teaching English as a Foreign Language. Peace Corps Volunteer.

3) Gail Moerman - M.A. Specialization - Teaching English as a Foreign Language. Experience teaching - two years.

4) Ruth Stephenson - M.A. Specialization - Teaching English as a Foreign Language.

3) Academic

a) Criteria for Selection

The program's projected structure required that professors for the academic courses should be native Spanish-speaking and qualified in their subject field. All efforts concentrated on recruiting individuals to meet these qualifications, and who would be willing to accept a part-time teaching position.

b) Staff Hired:

1. Luis Pinto - M.A. Specialization - Spanish, Two years experience as full-time instructor of Spanish in Wagner College

2. Israel Vizcaino - M.A. Specialization - History. No previous experience in teaching.

4) Counselor

The projected structure required employment of a counselor with a background in guidance and college life, fluent in Spanish, and, if possible, a Puerto Rican. Recruitment efforts concentrated on identifying a candidate with these qualifications.

Staff Hired:

Margarita Batista - M.A. candidate. Specialization - Guidance and Counseling. Three years of experience as educational Counselor with ASPIRA.

5) Secretarial Assistance

The Program called for two secretaries. It was felt that the services of a bilingual office staff was necessary since all contacts with students during recruitment and all communications with the students prior to admission would be in Spanish. Hence, Spanish is the language of communication used in the office, as well as English.

Staff Hired:

The college provided a bilingual secretary, Maximina Perfecto, who has worked in the Bilingual Program since it started.

Since by late August only a Director of the Program had been appointed, it was felt that the service of a recruiter was needed. Mr. George Valle was hired to help recruit students and to perform, later, some clerical work in the office, thereby relieving the Director of minor administrative clerical duties.

Two paid consultants, who evidenced commitment to the goals of the program, were hired. These consultants met with the Director, and at scheduled meetings with the President and the Dean of Faculty, to discuss the needs of the students and to make recommendations for providing for these needs.

The Bilingual Program Advisory Committee contributed to the program by suggesting avenues for program implementation.

III. STRUCTURE OF THE PROGRAM

A. English as a Second Language

1) Language Learning Theory

Language is essentially a spoken phenomenon. The sequence of language learning is listening, speaking, reading, writing. The child learns by imitation and mimicry. The adult learns by this same process. However, he supplements this process with conscious effort. The students' own language, cultural background, self-image, and attitudes toward the target culture and resulting motivation are psychological variables that can positively or negatively influence the language learning process.

Constant verbal practice in a meaningful situation and a familiar environment is essential for successful language learning. Since individuals have different degrees of language aptitude, are at different levels of language proficiency, and may be affected by inhibitions or negative attitudes, the classroom situation must provide for and accommodate these difference.

There is a need to systematically develop automatic control and fluency in the use of the basic patterns of the target language. A body of grammar must be mastered as well as the use of significant sound contrasts and sequences in order for language to become an unconscious set of habits. If the student is to cover and master this corpus to the point of fluency, he must have maximum controlled contact.

It is assumed that a person has learned a foreign language when he has mastered the sound system so that he can achieve an understandable production of it, and when he has made the structural devices a matter of automatic control.

2) Levels

On the basis of scores on the University of Michigan Language Institute's Oral Comprehension Test, Form A, and the Examination in Structure, Form A, the 45 students accepted into the Bilingual Program were divided into three levels:

14 students in Group I - elementary level

15 students in Group II - intermediate level

16 students in Group III - advanced level

Students' (percentage) scores ranged as follows on the two tests (these ranges do not include the 9 students not tested in October):

	Oral Comprehension		Structure	
	From	To	From	To
Group I	20	40	31	53
Group II	37	57	40	79
Group III	60	75	47	87

Students were grouped according to their oral comprehension scores.

What do the Scores Mean?

PROFICIENCY NORMS. The success of a foreign student in an English-speaking institution will depend on his qualities as a student, personal factors, his ability to find his way in a foreign environment, and on his control of English. The proficiency norms given below refer only to the student's control of English. His quality as a student and his preparation to undertake particular studies are determined by his previous record as a student in his own cultural environment rather than by his knowledge of English.

These proficiency norms are based on more than five hundred students who were tested at the English Language Institute, University of Michigan. The norms should be used as an aid in making judgments as to the adequacy of the English proficiency of individual students for specific purposes: A student going into a practical field where he may not have to meet much competition may need less English than one going into a theoretical field where he will have to compete on equal terms with native speakers of English. A student going into a field such as law, political science, or literature, in which he will have to deal with a heavy concentration of special uses and meanings of English,will need to meet the full norms or even better them.

PROFICIENCY NORMS

Per Cent Score	Interpretation
95 to 100	Students in this range have no apparent difficulty in understanding spoken English. They can compete on equal or nearly equal terms with native speakers. They are in a category that can be labeled "With Honors."
90 to 94	Students in this range understand English without apparent difficulty. They can compete successfully in fields which do not make heavy use of special meanings and styles of expression. In such fields they will have to struggle more intensively than other students, but they have a reasonable chance to succeed if they have adequate preparation.
80 to 89	Students in this range understand English sufficiently well to begin work in their fields of interest on a full-time basis. They will have difficulties with English. They will not be able to compete on equal terms with native speakers of English, but they can carry a full load of academic work if they have the necessary background and are otherwise good students.

70 to 79	Students in this range have a considerable handicap in understanding spoken English. They will not be able as a rule to carry successfully a load of academic work in a college or university where competition is keen. The particular field of the students and his preparation for it will be highly significant at this level. A half load can be managed in most cases. The student should make provision to study English on a part-time basis to remove the handicap he still has.
69 or below	Students in this range are not ready to undertake academic work in an environment where English is the medium of instruction. Those at the upper limit of this range may know enough Englsih to travel, but they will not ordinarily be able to go into academic work until they have devoted some time exclusively to the study of English.

Description of Language Tests:

1) Aural Comprehension

Designed by:

Charles C. Fries, Director
Robert Lad, Assistant Director
English Language Institute
University of Michigan

Copyright 1946
Scale 0-100

Format: Tape recorded sentences demanding comprehension and retention relating to pictures in a multiple (sentence) choice format.

2) Structure

Designed by:

Charles C. Fries, Director
Robert Lad, Assistant Director
English Language Institute
University of Michigan

Copyright 1946
Scale 0-100

Format: The first 92 questions are multiple choice items. The last 58 questions are designed to determine the ability to use grammatical structure.

3) Methodology

The techniques under experimentation were adapted to meet the students' needs for intensive and practical English training. Well recognized principles that applied linguistics has brought to the teaching of English as a second language are basic to the Bilingual Program methodology, which proceeded on the following assumptions:

a) The ability to understand (aurally) and produce (orally) the basic English structures and vocabulary is essential for communication, comprehension, and participation in upgrading programs.

b) Each student can profitably proceed at his own pace in improving general English grammar and the ability to read and write, through programmed instruction as an auxiliary to the predominantly oral sessions.

Audio-lingual Methodology

a) The initial emphasis of the Bilingual Program is on the ability to comprehend (audio) and speak (lingual) English. Later, emphasis is placed on the ability to read and write standard English.

b) The basic structural patterns of the English language should become integral and habitual linguistic patterns of the individual, aided by audio-visual equipment, such as a language laboratory and materials that permit constant repetition and comparison.

c) Exposure and use of the language in realistic situations maintains high motivation and reinforces the patterns taught.

Programmed Instruction

Programmed learning is based on learning principles derived from recent developments in psychology and education which demonstrate that students can master a subject with a negligible number of errors by proceeding through a course by a large number of small, easy-to-take steps.

4) Texts and Materials Used

The materials used to teach the E S L course included the textbooks outlined below. In addition to these texts, the Director, the teachers, and the curriculum assistant produced lesson plans, practice material, and tests suited to each of the three levels. Visual aids such as pictures, photographs, posters, maps, flash cards, and others were used to enhance the teaching process.

Texts

Group I used the following texts:

1. Allen, R.L., Allen, V.F., and Shute, M., English Sounds and Their Spelling. New York: Thomas Y. Crowell Company, 1966.
2. Dixon, R.J., The USA: The Land and the People. New York Regents Publishing Company, 1959.

3. Dykstar, G., Port, R., and Port, A., Ananse Tales: A Course in Controlled Composition. New York: Teachers College Press, Columbia University, 1966.

4. The National Council of Teachers of English, English for Today, Books One and Two; Workbooks, One and Two. New York: McGraw-Hill Book Company, Inc., 1965.

In addition, reading and practice materials were made up for this group.

The Following texts were used by Group II:

1. Allen, R.L., Allen, V.F., and Shute, M., English Sounds and Their Spelling. New York: Thomas Y. Crowell Company, 1966.

2. Danielson, D. and Hayden, R., Reading in English for Students of English as a Second Language. Englewood Cliffs, N.J.: Prentice-Hall, 1961.

3. Praninskas, J., Rapid Review of English Grammar. Englewood Cliffs, N.J.: Prentice-Hall, 1959.

4. Robinson, L. Guided Writing and Free Writing. New York: Harper Row, 1967.

5. Taylor, G., American English Reader. New York: McGraw-Hill Book Company, 1960.

The following texts were used by Group III:

1. Allen, R.L., Allen, V.F., and Shute, M., English Sounds and Their Spelling. New York: Thomas Y. Crowell Company, 1966.

2. Danielson, D., and Hayden, R., Reading in English for Students of English as a Second Language. Englewood Cliffs, N.J.: Prentice-Hall, 1961.

3. Dykstar, G., Port, R., Port, A., Ananse Tales: A Course in Controlled Composition. New York: Teachers College Press, Columbia University, 1966.

4. Praninskas, J., Rapid Review of English Grammar. Englewood Cliffs, N.J.: Prentice-Hall, 1959.

5. Robinson, L., Guided Writing and Free Writing. New York: Harper Row, 1967.

In addition, selected articles from The New York Times were used as reading materials and served as bases for classroom discussions and written critical analyses.

5) The Language Laboratory

Audio laboratory practice was integrated into the E S L schedule to reinforce the work being done in the classroom. Two hours weekly were scheduled for each group in the Bronx Community College's audio laboratory. Special arrangements had to be made with the head of the audio laboratory to accommodate our program.

These two hours were part of the regular schedule and were supervised by the E S L teacher. Special tapes were produced for this program in consultation with the E S L teachers and the Director.

B. Academic

1) Rationale

In recognition of the second general goal of this program, i.e., "to provide an opportunity for college education to students with a valid high school diploma who do not speak English," 14 credits in academic courses were offered this past academic year. By allowing students to take academic courses in their native language while they are learning English, it was hoped that they could earn up to one full year's college credit in 2 years.

The motivational value of offering academic credits should not be overlooked. It is an extra incentive to the students.

Our records show that many of these students were working and were earning from $70.00 to $100.00 or more per week, before entering the program. Others were taking training with community agencies for which they received a weekly stipend of $40.00 or more. Attracted by the opportunity to gain academic credit for courses taught in Spanish while, at the same time, learning English so as to be able to continue college work in English, these students gave up their jobs or training programs to study full time in the Bilingual Program, thus achieving their goal of going to college.

2) Selection of Courses

The selection of courses taught in Spanish was based upon the requirements of the liberal arts curriculum at Bronx Community College and on the availability of qualified bilingual instructors. The two courses selected and offered in the Fall semester were Spanish 21, a college level 4 credit course in Spanish, and History 11, a 3 credit History of Western Civilization course.

The courses offered in the Spring semester were continuations of the two courses given in the Fall:

Spanish 22 - 4 credits

History 12 - 3 credits

3) Texts

The texts used in these courses were approved by the respective Modern Languages and Social Studies Departments as being the same or equivalent to the texts used for these courses in the regular Bronx Community College curriculum. The books in question were:

History:

Historia Antigua y Media - by Ediberto Malban - First Semester

Historia Moderna y Contemporanea - by Ediberto Malban - Second Semester

Spanish:

Spanish 21 - Margenes - Historia Intima del Pueblo Hispano by Sinia Hacks de Silva

Review of Spanish Grammar - by Cioffari and Gonzalez

Spanish 22 - Retratos de Hispanoamerica by E. Florit and and B. Patt

A textbook of Modern Spanish by Ramsey

In addition to these texts, the instructors of both courses produced supplementary materials and texts in Spanish.

C. Counseling and Extracurricular Activities

1. Introduction

Once the Bilingual Program was under way, the concept and format of the counseling aspect of the program was developed. The working

hypotheses held that bringing ghetto residents into a college implies the responsibility of providing continued education information and adequate personal assistance to insure the success of these individuals in a collegiate situation.

The counseling program provided students with counseling advisement, and information about study and career opportunities at Bronx Community College and in the Greater New York City community.

The operation of the program encountered some difficulties in that Bronx Community College is and has been overcrowded, resulting in certain inconveniences, such as the lack of space and privacy for the conduct of this as well as other of the College's programs.

The lack of privacy may have kept many students who needed counseling away from the office. Under these difficult conditions, with the encouragement of the Director, the program continued to function.

2. Activities During 1968-69

The counseling program presented itself to Bilingual Program students as a counseling-advisement and information service.

a) Counseling Services

The counseling services offered were both general and specific. The service included individual interviews and group consultation with students about a wide variety of problems and concerns which were affecting their educational, vocational, and personal development.

Students were seen on an ongoing basis for as many hours as was deemed necessary for the facilitation of their growth and development, and the resolution of their concerns.

Table II represents a general distribution of the numbers of students seeking individual counseling from October 1968 through May 1969.

Table II. Distribution of Students Counseled

Month	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
N	24	26	16	30	21	41	119 through 5/31/69	

A list of the most prevalent problems for which students sought counseling follows:

1. Financial Aid to Remain in School
2. Tutoring
3. Job, Part-time
4. Job, Full-time during Summer break
5. Career Information
6. Bronx Community College Curriculum Information
7. Transferring from a 2 Year College to a 4 Year College
8. Evaluating High School Credentials
9. Marriage Counseling
10. Social Service Information
11. Medicaid Information
12. Room and Board Information
13. Information about New York City as a Cultural and Information Center
14. Improving Study Skills

b) Informational Services

One of the major purposes of the counseling program was to become an information resource to students in the program about college

and career choice. To this end we started developing a career guild program. Career guilds were initiated as a way to provide orientation and as a vehicle for motivating the student to do individual research on the career he has set as a goal. Students were divided by career interest into one of the following guild areas:

1. Education
2. Social Work
3. Business
4. Technology (areas determined by Bronx Community College technology curricula, such as electrical,mechanical, plastics)
5. Law
6. Fine Arts
7. Medicine

A comprehensive folder was opened for each guild which included two and four year college information materials, vocational information resource material,and other information related to that guild area.

The purpose of the guild was to expose program students to this information, to educate and to assist them in the utilization of this information.

We found that supportive personnel is needed to conduct these guilds effectively.

c) Advisement Services

Throughout the academic year 1968-69, advisement activities were held for all students on an ongoing basis. Most activities involved group meetings with students. The tutoring aimed at developing study skills, habits, attitudes as well as subject matter proficiency, and involved both individual and group meetings. Even group tutoring, however, was restricted to small groups of 3 or 4 students.

A summary of student advisement activities from October, 1968, to May, 1969, follows:

1. Orientation to New York City Welfare: 9 students referred

2. Orientation to Medicaid: 7 students referred

3. Socio-Cultural Activities:

   Night of Puerto Rican Culture, December 17, 1968 - College-wide activity sponsored by students and faculty of Bilingual Program. A lecture on Puerto Rican Culture offered by the Director of the program. Black poetry readings, Puerto Rican dances, and typical Puerto Rican foods were prepared by students.

   "Fiesta de Reyes" - Three Kings Celebration, January 8, 1969. Staff treated students to sweets. Students provided music and entertainment.

4. Orientation to New York City:

   Various weekend trips were planned. Students and their families were invited. Since many of the students were recent arrivals from Puerto Rico, a way had to be found to introduce students to the urban New York scene without eating into class hours.

   Brooklyn Museum to visit exhibition of ten Puerto Rican artists.

   Cloisters

   Hispanic Museum

   Galeria Hoy - Friends of Puerto Rico art gallery.

   New York Baseball Game - Mets

   Talentino Poetry Reading

   Town Hall - Opera - Barber of Seville

   Lincoln Center - New York City Ballet

   Museum of Modern Art

   Metropolitan Museum of Art

   Bear Mountain via New York Circle Line Boat

d) Financial Aid Workshops

The original proposal did not provide a separate clothing stipend for students. Since many students had arrived recently from Puerto Rico, they were not adequately prepared for the first snow fall in early November, 1968. A list of the students needing emergency clothing was forwarded to the College's Financial Aid Office. Through the Financial Aid staff, special clothing grants were provided. On November 20, 1968, a follow-up workshop was held with students who received emergency clothing stipends to identify shops where students could get more for their dollar in the New York City area.

e) Library Tours

To familiarize students with the Bronx Community College library facilities, three class tours were sponsored on January 20, 21, and 22, 1969.

f) Study Skills Workshops

Topics Covered: Note Taking, Reading a College Text, Using College Outline Series, and How to Work with a Tutor.

g) Thanksgiving Dinners

Through the Mayor's Office and the New York Friends Service Committee, a number of students living alone had Thanksgiving dinner with families in the Greater New York area.

h) Where to Find Summer Jobs

Through the College office of Financial Aid and through direct contacts made by the program with the Neighborhood Yout Corps, all students who wanted to work full-time this summer were placed. Jobs averaged

$105 weekly. Students gained valuable insight into the social problems of the city. Many had an excellent opportunity to improve and practice English and to serve as:

Teacher Aides
Office Assistants
Clerks
Receptionists
File Assistants
Program Aides - in neighborhood recreation and educational programs
Field Supervisors - in neighborhood recreation and educational programs

3. Discussion

As a result of the various experiences during our first year, it may be concluded that there is a need among Bilingual students for the counseling services we attempted to provide. These experiences have clearly pointed out that the idea for Bilingual Education has merit and value. We have learned that additional supportive services are necessary to insure the fullest achievement of students in the program.

Additional budget should be available to provide qualified staff in the following areas:

1. Study skills and tutoring.
2. Testing - administration and interpretation. Career and interest inventories. Aptitude tests.
3. Psychological counseling - in depth counseling for students with deeper emotional and personality problems.
4. Summer study in both English and academic areas.

It is now clear that the physical setting into which we first ventured was inadequate for our professed purposes and in many ways was a barrier, rather than an avenue for accomplishing our goals.

4. Critique

There remain many questions, ideas, and projects which still must be considered in our continuing program. There was one program which had limited exposure, the "Study-Skills Workshops." These workshops were intended to build needed scholastic skills among the students which could remain with them throughout their academic careers. This idea and program needs to be reexamined and implemented.

Although the original proposal did not plan summer study, many students worked to pay for summer courses or took evening courses in local high schools to make up incomplete high school academic credit, especially in mathematics. Since the group is highly motivated to earn their two-year junior college degree as quickly as possible, additional budget should be available to provide for students to move out of Bilingual courses and into the regular Bronx Community College curriculum courses as quickly as they are able.

As we continue to function and uncover the rich possibilities for extending the Bilingual aspect of our program, the need for more systematic evaluation and research is evident. We need the answers to such questions as: What are the "needs" of our students? Are these needs being satisfied by the current service we are providing? What models and generalizations for other bilingual programs within mainland colleges can be constructed? The answers to these questions could become part of a plan for futre bilingual programs.

One student, a married woman 19 years of age, is a dramatic example of the drive in this group. She is a severe diabetic. Last year, she missed numerous classes in order to keep appointments at a local clinic.

Early last Fall, she became pregnant and had a son in June. She is back in school this Fall because now college means even more; she must "insure a better future for the baby."

Many students have medical difficulties which go unattended. Those who do seek medical attention must rely on public clinics for treatment since they have no medical coverage of their own. Many valuable class hours are spent waiting in clinics. Since many of these students recently arrived from a tropical climate, they frequently catch colds and get ear infections. One student who did not want to miss classes postponed going to the clinic until her condition was so serious that the doctor recommended she return to Puerto Rico.

Related to the need for a medical plan is a need for student housing. About one half of the students in the program live alone or in overcrowded conditions with distant relatives. Loneliness and the lack of adequate study space and privacy have presented serious adjustment problems.

An 18-year old woman student was forced to leave the program when her sister with whom she was living decided to return to Puerto Rico. The problem of student housing cannot be easily solved, but if these students have a living arrangement consonant with their college goals, their chances of remaining in the program and even of learning English more quickly might be improved.

In the long run, providing student housing might be more economical since stipend money to cover room and board could be pooled. There is a need to think boldly and to innovate if the program is to truly pioneer other similar efforts.

IV. Student Progress and Other Program Outcomes

A. English as a Second Language

In October 1968, 36 students accepted into the program were given the Michigan Language Institute's Aural Comprehension Test, Form A, and the Examination in Structure, Form A. Nine students were not tested at that time but were placed exclusively on the basis of an oral interview. Because student regrouping was felt to be needed a few weeks after classes began, students were retested on November 3 using the same examinations used in October. The results of these tests, plus a ten-minute interview of students, and the subjective observations of the individual teachers and the Director, were the bases for changing student placements.

One student from Group III was sent to Group II and replaced by a student from Group II. Three students from Group II were sent to Group I and replaced by three students from Group I. The three students moved down were not performing on the level of the group they were placed in. Those moved up were too advanced for the group they were originally placed in.

In May, Form B of the Michigan Language Institute's Aural Comprehension Test was administered to all three groups, along with the Michigan Test of English Language Proficiency, a much more difficult structure examination which tests for readiness to enter into the regular college curriculum. In addition, Form A of the Michigan Language Institute's Examination in Structure was administered a third time to Group I because it was felt that the more difficult examination in structure could not be relied on to reveal improvement in this area for this group.

Groups I, II and III will be given the Michigan Examination in Structure in September because otherwise valid statements cannot be made on improvement in this area. The Michigan Test for Proficiency is a different test and can be used to see how well students would do in an English language curriculum.

Table III indicates individual student progress in English as estimated by the tests shown, from entrance into the program in October 1968, to the end of the academic year in May, 1969.

1) The Evaluation of "Gain" Scores

Because of misleading information contained in the"Manual" for the Tests of Aural Comprehension, meaningful gain scores (post-test minus pre-test scores) could not be computed. The "Manual" referred to equivalent forms of the test, and so Form A was administered at the beginning of the program in the Fall of 1968, and the alleged "equivalent" Form B, in May 1969, at the end of the academic year. Since no confirming data, however,were contained in the "Manual," the test developer (English Language Institute, University of Michigan) was consulted on the advisability of interpreting difference scores based on different forms of the test, as change scores. The Institute advised against such a procedure citing lack of evidence of raw score equivalence among the three forms of the test (only raw scores are obtainable).

Gain scores on the Examination in English Structure could also not be computed because of a decision to substitute a test deemed more appropriate and better standardized (Michigan Test of English Proficiency) than the English Structure Test.

The strategy for gain score evaluation at the end of the full program period, is dexcribed in Section VIII "Design for Evaluation of Two-Year Program."

Table III

Scores* - 1968-69 Michigan Standard Tests

Students	Aural Comprehension			Structure			Michigan Proficiency Test
	Form A Oct. 3	Form A Nov. 3	Form B May 9	Form A Oct. 3	Form A Nov. 3	Form A May 14	May 9
Group I							
1.		47	65		65	79	48
2.		47	60		55	74	47
3.	23	45	57	39	43	59	41
etc.	40	60	53	35	51	59	45
	40	40	63	48	53	68	36
	57	70	67	55	65	78	61
	38	32	55	31	30	52	39
	33	52	60	38	63	63	49
	35	43	73	45	59	73	42
	28	45	55	39	41	59	34
	32	40	52	42	45	53	41
	-	40	63	-	63	80	47
	37	37	48	39	51	62	40
	28	45	62	48	49	63	43
Group II							
	20	52	77	53	58		51
		52	73	-	59		42
	-	65	85	-	76		74
	57	43	70	46	53		42
	57	77	82	72	76		61
	55	62	72	62	66		58
	53	60	77	58	68		60
	48	53	63	79	79		61
	47	70	68	63	69		52
	43	55	80	40	69		48
	42	55	77	60	70		71
	37	58	72	60	73		58
	38	60	70	51	69		56
	-	62	80	-	91		62
Group III							
	Form A						
	60	72	85	77	83		70
	70	80	82	87	92		75
	-	63	65	-	75		82
	62	80	75	72	75		82
	-	72	98	74	86		97
	48	72	83	74	77		74
	62	68	88	77	78		74
	75	83	88	85	87		74
	75	75	83	78	79		77
	62	73	-	47	58		-
	73	78	80	81	91		79
	-	80	82	-	90		82
	60	73	77	77	73		67
	75	78	87	82	87		69
	67	82	87	79	85		77
	65	83	85	72	89		77

* Percentages

2) Relationships Between Entry and Criterion Variables

Since it was evident that the program would be faced, in the future, with the problem of a small selection ratio (small number of possible acceptances in relation to number of applications), it seemed highly desirable to investigate the relationships between several student characteristics at program entry, as predictor variables, and measurable end of year criterion variables.

The complete analysis of this problem is found in Appendix A. In summary, it may be said that the (Spanish) Scholastic Aptitude Tests, both Verbal and Mathematics, show moderate to high correlations ($r = .434$ to $.701$) with each of the three criterion variables, Aural Comprehension, English Proficiency, and the combined end of year scholastic index. The Test of English Structure, however, was the best predictor of Aural Comprehension and English Proficiency ($r = .751$) and .789 respectively). These are impressive zero order correlations, and the possibility that improved predictions can be attained through multiple regression analysis will be explored during the second year, if this direction seems indicated. High school grade average, not unexpectedly, was the single most powerful predictor of the combined index ($r = .584$). These relationships were confirmed through procedures involving 33 analyses of variance and three t tests, as shown in Appendix A.

3) Provision of Control Group

The question of the provision of a control group to which the progress of the program group could be compared was also given consideration. Since the program seemed to be designed to demonstrate that certain specific goals could be achieved in a certain period of time, applicants were selected to maximize the probability of reaching these goals. Therefore, no eqivalent

group of students, from among the applicants, existed to constitute such a control group. It is true that a group of students, having similar characteristics to the group admitted to the program, could be selected as a comparison group, and scores on certain of the English tests used as criteria. However, the comparison group would have had to be called in to take the tests with the admitted group, both in September and in May. Serious questions of both ethics and procedural feasibility and validity precluded forming such a comparison group.

B. Academic

All forty-five students passed English as a Second Language. The requisites for passing this course called for maintaining at least a D average on tests given throughout the first semester, participating in all classroom drills and activities, and fulfilling all the outside assignments. Students who met these requirements were given a grade of P, but earned no credits toward a college degree, for passing this course.

The following is a distribution of all Spanish and History grades* at the end of the first semester:

A	10 students	23% of the class
B	11 students	26% of the class
C	18 students	42% of the class
D	4 students	9% of the class
F	0	0

Although the History text was considered substandard, the instructor and the course as a whole were approved by the Head of the Department of Social Studies. A new History text is being sought.

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* Averaged grades

All forty-five students returned to register for the second semester. At the time of this report forty-three students were active. Two students had dropped out of the program because of illness and/or excessive absences. At the end of the year forty-two of the forty-three students passed English. The following is a distribution of all Spanish and History grades* at the end of the second semester (includes 5 grades in Music and Health Education which were regular Bronx Community College courses).

A	4 students	9% of the class
B	9 students	21% of the class
C	24 students	56% of the class
D	6 students	14% of the class
F	0	0

At the end of the academic year each student had a total of at least 14 credits toward a Bronx Community College degree.

In addition, four students were enrolled in a course in Art Appreciation (ART 11) offered in English in the Department of Speech and the Fine and Performing Arts, and one in Introduction to Physical Education (HLT 11) in the Department of Health and Physical Education, both at Bronx Community College. The grades awarded to the students in the Art Appreciation course were: B, 2 students; C, 2 students. The student who took Introduction to Physical Education received a grade of C.

Based on the progress made thus far, it would appear that: 1) 80% of the first group of students will achieve the goal of developing an English proficiency at the end of 2 years sufficient to enable them to enter the regular college program, 2) all students will possibly earn one

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* Averaged grades

full year of college credit, or more, at the end of the two-year period, and 3) five students who moved to take all courses in English after the first year may possibly complete requirements for a two-year degree in around three years.

C. Other Outcomes

1) Students

Students have realized that, if they do not learn English quickly and well, it will take them about four years or more to complete requirements for the two-year degree. They have shown great concern about this and are trying hard to move ahead.

2) Family

Parents and close relatives of the students encouraged students to leave their jobs to study in the Bilingual Program. They offered the students free room and board, where possible, in order to help them achieve their goals.

3) Community

Non-English,Spanish-speaking people from all boroughs inquire, day after day, about the opportunities to study in the Bilingual Program. The community agencies continue to refer candidates for the program and we keep a waiting list of those interested.

V. Observations and Recommendations Regarding the 1968-69 Program

Our first year has identified program areas which the original proposal could not have anticipated. Additional supportive services would enhance the overall effectiveness of this program.

For example:

1) Field trips to cultural sites outside of New York City.

2) Cultural workshops on the history and culture of Puerto Rico, and Afro-American culture.

3) Additional budget to offer summer courses for credit is most urgently needed. For example, very few students in the program have the same mathematics background in high school. Many students need to correct high school mathematics deficiencies before they can move into college mathematics courses required for graduation. At present, the program provides no assistance for students in this area. If the program offered Intermediate Algebra and Trigonometry in Spanish during the summer to eliminate high school deficiencies, it is reasonable to expect that bilingual students would be able to graduate in a more favorable period of time than they could otherwise.

4) If the minimum required amount of English is to be taught in two years, in order to allow transfer of all students to an English-speaking classroom situation, class sections of English as a Second Language should continue to allow for smaller classes on a 1 to 12 ratio. This will give the teachers of English as a Second Language an opportunity to drill constantly and offer more individual help to slow students.

5) Most of our students have contact with the English language only when they are in their English classes at the College. This situation becomes crucial when the students leave for vacation and have no contact with English at all. If English is to be effectively learned in the specific circumstances of a bilingual effort, it is of utmost importance that summer classes in English as a Second Language be offered and/or summer internships in an English-speaking environment be provided.

6) A psychological research consultant is necessary to determine factors which may limit students' language learning and which may affect motivation in their college work.

7) Student housing facilities for the large numbers of students living alone are advisable. Students living in a home-like atmosphere seem to have fewer problems adjusting to New York City and seem to perform better academically.

General Observations:

1. The success of the program depends greatly on the success of the students in adapting to the new environment of the college, in both educational and psychological terms. Counseling and general orientation workshops are crucial in helping achieve this goal. Staff meetings, group meetings, group interviews, individual interviews, small group tutoring, individual tutoring, special conferences, cultural activities, field trips, etc., are necessary in order for the students to succeed. A larger supportive staff should be provided to carry out these

activities. It is evident that an experimental program of this nature cannot function at maximum efficiency with limited space and supportive staff.

2) Major responsibility for research and evaluation was assumed by the Dean of Faculty through its Office of Institutional Research. Nevertheless, tasks entering into these functions demanded more of the Program Director's time than was anticipated at the program's outset. Should greater demands be made (with the expansion of the program), assistance may be necessary.

3) Although significant progress can be made by students in the Bilingual Program, graduation in three years seems impossible for most students since it is difficult to see how they could complete two years of regular college English in this period of time. It is also problematical whether Bilingual Program students earning only 14 credits during the first year can amass a properly distributed 64 credits by the end of three years.

VI. Program Planned for 1969-70 - Second Year Group (Sophomores)

A. E S L - Third and Fourth Semesters

Five students were recommended to take all their courses in English during the second academic year. This left a total of 38 students. These students will be divided into three groups: elementary, intermediate, advanced. The elementary and intermediate groups will be given 12 hours of E S L; the advanced, 9 hours of E S L. Two hours of laboratory work will be assigned to the elementary and intermediate levels. The advanced group will not be assigned laboratory hours, since the emphasis will be on improving reading and writing skills.

We tentatively plan to register some of the advanced students for all courses in English in the Spring semester and to reduce the number of E S L hours for at least the advanced and intermediate groups. The elementary group will need as many hours as we can assign to them so that they will retain the 12 hour E S L schedule in the Spring.

B. Academic - Third and Fourth Semesters

The Bilingual Program is offering a course in Sociology in the Fall semester, and courses in Economics and Psychology in the Spring semester, all in Spanish. These courses have a weight of 3 credits each.

The elementary group which will be carrying 12 hours in E S L will be registered for both the above mentioned courses and a ½ credit course in Health and Physical Education. The intermediate group which will be carrying 12 hours of E S L will have 12 students taking two courses in Spanish in the Bilingual Program, and from 1 to 2 courses in one of the Bronx Community College's curricula.

The advanced group, which will be carrying 9 hours of E S L, will have 15 students taking two academic courses conducted in Spanish and one or more academic courses conducted in English.

No courses in any Bronx Community College curriculum were planned for the elementary group because those students had not reached the fluency level needed to tackle a course in English. Most students in the intermediate group and all of the students in the advanced group have progressed sufficiently to be able to handle at least one course in one of the Bronx Community College's curricula.

VII. Expansion of Program

A. Source of Students

A second group of students was selected to enter the Bilingual Program in the Fall of 1969. The budget for this group was approved late in May, 1969. Recruitment started late and was rushed just as was the recruitment of the first group.

Students were recruited from the various community agencies as follows: Manpower Career Development Agency, ASPIRA, Puerto Rican Community Development Project, Commonwealth of Puerto Rico, and Mobilization for Youth. Each referred candidates for the Program.

El Diario-La Prensa published various reports on the Program, thus helping to recruit. Radio station W A D O helped by announcing that recruitment was under way. As a result of these recruitment efforts, hundreds of students applied through the community agencies or directly through the Bilingual Program's office, either personally, by telephone, or in writing.

B. Changes in Criteria for Student Selection

Over three hundred students applied for admission into the Bilingual Program for the Fall, 1969. Most of these students were notified to come and be tested. One hundred eleven appeared for testing on June 10 and since we did not have the 150 applicants established as the minimum needed for selection, a second day of testing was scheduled for July 1. One hundred twenty more applicants were notified and 60 of these appeared for testing.

All of the students were administered the S A T in Spanish, a test to determine the "need for achievement," and the Michigan English Language Proficiency Examination to determine fluency level.

The S A T verbal scores ranged between 357 and 767; the Mathematics between 365 and 638. The proficiency examination ranged from 35 to 90. For the combined verbal and mathematics score of the S A T, the cut-off score was set at 800. This was set in the light of our experience with the performance of the first group of students. The 40 minimum set for the language Proficiency test was based on an analysis of the scores achieved on that test by the 1968-69 class of the Bilingual Program. On this test, the elementary group scored an average of 43 when given that test in May 1969, after a year of E S L. As a group, there is a question as to whether they will be able to achieve the fluency level needed to enter into the regular college curriculum within the two-year limit established by the Bilingual Program. Therefore, it was felt that an incoming group should have a score of at least 40 in order to be able to successfully complete the Bilingual Program in two years. The "need for achievement" scores will be added to the list of predictive variables to be explored for relationship to criterion performance.

Out of the 180 students who took the three tests, the top 45 were selected for admission.

C. Student Profile (See Appendix B)

D. Projected Program Structure for New Group

1. English as a Second Language

The 1969-70 class will be divided into 4 sections of approximately 11 students per section. Our experience with the 1968-69 class indicates that greater success can be expected when there is a lower teacher-student ratio. Since this is an active language learning process where individual practice is highly essential, a smaller class is desirable. It is accepted E S L theory that optimum learning takes

place in a class of not more than ten students. All four sections will be assigned 12 E S L hours, including two hours of laboratory per section. The 12 hour maximum was set because it was found that the 15 and 16 hour schedules, along with seven hours of academic work, counseling, and extra-curricular activities, was too heavy a load for students learning a new language in an unfamiliar culture. Also, it is expected that the group entering in the Fall of 1969 brings with it a somewhat higher English proficiency and is more highly motivated than the 1968-69 group and may not require as many hours of E S L.

There is a serious dearth of materials in the area of English as a Second Language. This has placed a much heavier than normal load on the faculty. They, therefore, feel that a reduction in hours from the usual Bronx Community College faculty teaching load of fifteen hours, to not more than twelve hours, is necessary.

2) Academic

The incoming group will also take Spanish 21 and History 11 in Spanish in the Fall semester, and Spanish 22 and History 12 in the Spring semester. It is hoped that the smaller E S L class will allow the teacher to give more individual attention to the students, which should result in greater progress on the part of the student. Therefore, there is the possibility that all 45 students of the incoming group will be able to take at least one course in one of the Bronx Community College curricula in the Fall of 1970.

E. Staffing

1. English as a Second Language

a) Criteria for Selection

The same criteria used in the selection of E S L instructors for the first group was followed in the selection of additional E S L staff.

(See Page 7)

b) Staff Selected

At the time of this report we had interviewed several candidates, but since the pool of individuals with qualifications to meet the needs of the students in this program is limited, recruitment efforts will continue in order to be able to select the best qualified.

2) Academic

a) Criteria for Selection

(1) To be qualified in the subject field, bilingual, and native Spanish-speaking.

(2) To be available on a part-time basis at hours which will not conflict with students' class or work schedules.

b) Staff Hired:

At the time of this report only two candidates had been found who met the above mentioned criteria:

(1) Luis Pinto - M.A. Specialization - Spanish.
Three years of experience as full-time instructor in Spanish.

(2) Samuel Ackerman - M.A. Specialization - History.
No previous experience in teaching.

VIII. Design for Evaluation of Two-Year Program

In the Fall of 1969, and again in May of 1970, both first and second year students will receive the following tests:

1) Test of Aural Comprehension, Form A.

2) The Examination in Structure, Form A.

3) Michigan Test of English Proficiency.

4) Harris Diagnostic Tests, including scores in vocabulary, words per minute, speed, and comprehension.

The evaluation of data will not only repeat the prediction studies carried out during the first year, but will enlarge the analysis in several ways. Multiple correlations will be sought to improve the prediction of success from entry variables, in an attempt to deal with the very low selection ratio which has characterized the program during the two selection periods thus far. Since provisions have been made to collect meaningful difference scores (mainly through ensuring that the same form of the "non-equivalent" tests are administered as criterion measures), an analysis will be made of these difference or "gain" scores to determine relationships to students' entry characteristics. The same basic correlational analysis, analysis of variance, and "t" test techniques will be used as described in Appendix A. Entry variables will remain approximately the same as those used for the analysis of the first year's data, with the exception that scores on a "need achievement" variable may be added. The criteria will be expanded to include the new Harris Tests mentioned above.

The progress of the individual students will again be reported in terms of degree of movement toward the two major goals of the program: 1) English Proficiency at such a level as will enable students to enter all courses in English, b) one full year of earned academic credit at the end of two years.

Informal observations of program affects on students, faculty, program staff, college, and community, will also be reported when significant.

The question of the provision of a control group to which the progress of the program group could be compared has already been discussed (Section IV, A, 3) but will be reiterated here. Since the program seemed to be designed to demonstrate that certain specific goals could be achieved in a certain period of time, applicants were selected to maximize the probability of reaching these goals. Therefore, no equivalent group of students from among the applicants existed to constitute such a control group. It is true that a group of students, having similar characteristics to the group admitted to the program, could be selected as a <u>comparison</u> group, and scores on certain of the English tests used as criteria. However, the comparison group, none of whose members would be taking courses at the college, would have to be called in to take the tests with the admitted group, both in September and in May, and it is unlikely that all members of this group would agree to this. Serious questions of both ethics and procedural feasibility and validity, therefore, precluded forming such a comparison group.

IX. Conclusions

The Bilingual Program, sponsored by the Ford Foundation and the City University of New York, has opened the road for a college education to a group of individuals with high aspirations, but who are hampered by the lack of English language ability to start college work in an English-speaking situation.

By offering an opportunity to take academic courses in Spanish to students concurrently learning English, there is an indication that non-English-speaking students can succeed in a bilingual effort and maintain a high level of motivation and aspiration.

Of the forty-five students who participated in the first group, two had left the program at the time of this report, for an attrition rate of 4%; five students are now in one of the regular Bronx Community College curricula; the rest are taking two academic courses in Spanish and academic courses in English, depending on their English language ability.

Based on the progress made so far, it seems that most of the students will be ready to move into a regular college program at the end of the second year. However, financial handicaps may prevent some of these students from going ahead, since the great majority of them support themselves and will need financial support after the second year in order to be able to continue in college. (Stipends for these students range from $15.00 to $50.00 a week depending on their financial needs.)

At this point, it appears that graduation (acquisition of a degree) for most of these students in three years or less is impossible, for several reasons:

1) Students who are planning to follow a Liberal Arts Curriculum at Bronx Community College are required to take two years of college level English. Most Bilingual Program students will probably not be able to accomplish this in three years or less, because of their limited English fluency.

2) Limited English fluency will prevent career oriented Bilingual Program students from taking specialized vocational courses, until the minimal level of English fluency is reached.

3) Students who change their educational goals may find that certain credits earned toward degrees in the curricula of their initial choice may not be recognized in their new curricula.

It is apparent, therefore, that although few students will be able to earn a two-year degree in a period of three years from the time of entrance into this Program, the Program's two major goals are likely to be achieved by most students. These goals are: 1) development, in two years, of an English language proficiency sufficient to enable students to enter a regular college program, 2) earning, in two years, of one full year of college credit.

APPENDIX A

BILINGUAL PROGRAM - RELATIONSHIPS BETWEEN ENTRY AND CRITERION VARIABLES

PROCEDURE FOR DATA ANALYSIS

The search for entry variable correlates of program success took two forms, correlation, and comparisons of means of arbitrarily defined student groups.

Although it is our intention to develop multiple regression equations for use in predicting criterion scores, computer programming could not be arranged in time for this report. These equations will probably be ready in the Fall of 1969. In the meantime, zero order Pearson product-moment correlations have been computed for twelve predictor variables and three criterion variables. These are shown in Table 1.

Since the Pearson product moment r would reflect a real association only if the assumption of linear regression were supported by the data, the students were divided into three equal-intervaled groups on each of nine predictor variables, and the means of these three groups compared by analysis of variance.* The categorization assumed a normal distribution of each predictor variable. For each variable, the student scores were rank ordered and three equal stanine-interval groups formed by placing the first 24% (stanines 7,8,9) into Group A, the next 52% (stanines 4,5,6) into Group B, and the remaining 24% (stanines 1,2,3) into Group C. Tables 2-4 give the means and corresponding F (statistical significance test) values. Differences among the criterion score means of these groups, for each of the predictor variables, were then assessed, the rationale being that where the product-moment assumption of linearity was violated, significant differences between means might still be found even where the Pearson r is non-significant. Such significant differences would also suggest a relationship between predictor and criterion variables, though non-linear.

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* In the case of predictors "Type of School in P.R." and "Living Arrangement," these had been grouped into three categories a priori as follows: 1) Rural, 2) Small City, 3) Large City, and 1) Married, 2) Live with others, 3) Live Alone, respectively. Sex, of course, was limited to only two categories.

Figure A, a hypothetical example, illustrates this possibility.

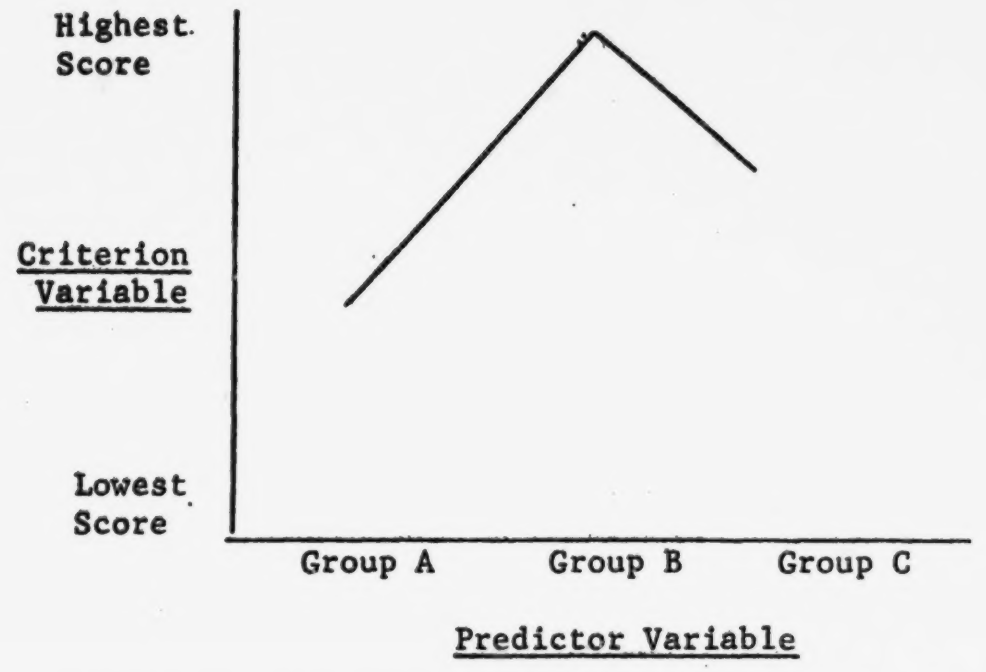

Figure A. Non Linear Relationship between Predictor and Criterion (Hypothetical).

Sex differences on the criterion variables were explored by means of t tests for independent groups. These data are shown in Table 5.

Entry Variables

1) Scholastic Aptitude Test (Verbal)
2) Scholastic Aptitude Test (Mathematics)
3) Scholastic Aptitude Test (Average)
4) Aural Comprehension (English Language Institute, University of Michigan, 1946) Form A.
5) English Structure (English Language Institute, University of Michigan,1946)Form A.
6) High School Grade Average
7) Months in U.S.
8) Type of School Attended in Puerto Rico
9) Months since High School Graduation
10) Age
11) Living Arrangement (whether married, living with others, living alone)
12) Sex

(continued)

Criterion Variables

1) Aural Comprehension (English Language Institute, University of Michigan, 1946) Form B.

2) English Proficiency (Michigan Test of English Proficiency, 1961)

3) Bronx Community College Cumulative Index (First Year)

RESULTS

Examination of the correlations in Table 1 reveals several significant relationships. The S.A.T. Verbal and Mathematical tests show moderate to high degrees of relationship to all three criterion variables. Almost 50% of the variance on the English Proficiency test can be accounted for by S.A.T. (V) test variance. Averaging S.A.T. (V) and S.A.T. (M) scores produces a score which appears to be a better "all-round" predictor of the three criteria than either one of the S.A.T. tests taken separately. The relationship between this Spanish form of the S.A.T. and scholastic achievement, seems to be approximately of the same order as that between the English form and scholastic achievement for English speaking students, except that the Mathematics test appears to be slightly superior to the Verbal test, in the Spanish form, for predicting the Combined Index (Spanish and History). This is somewhat unexpected, since both criterion variables would appear to be highly verbal areas.

Only three other variables appear to have predictive value. Aural Comprehension at entry correlates strongly with the criterion Aural Comprehension score, but even better with the English Proficiency criterion score. At the same time, Aural Comprehension at entry shows no relationship (Λ = .059) to the Combined Index score. English Structure, on the other hand, not only shows a superior relationship to criterion Aural Comprehansion and English Proficiency scores as compared with the Aural Comprehension entry score, but also correlates significantly with the Combined Index, which the Aural Comprehension entry score fails to do.

The High School Average achieved by students in Puerto Rico shows the expected strong correlation with Combined Index, somewhat weaker correlation with Aural Comprehension, and no significant correlation with English Proficiency.

None of the remaining predictors show any significant relationship with any of the criteria, with the exception of Age, which shows a moderate relationship with English Proficiency.

From the table of correlations, therefore, it appears that the English Structure test at entry into the program is the single best predictor of criterion Aural Comprehension and English Proficiency, while High School Grade Average best predicts the Bronx Community College Combined Index, at least when the latter reflects achievement in Spanish and History, which were the courses entering into the index for the year under study.

Tables 3 and 4, presenting the same results as differences between the means of three equal stanine-intervaled groups, essentially confirm the observations made above concerning Table 1 (Correlations). English Structure entry scores are found to produce greater differences among the means of the three groups for both Aural Comprehension and English Proficiency criterion scores, and the High School Grade Average produces the largest differences among the three groups for the Combined Index Criterion (Table 2).

The relationships between the three S.A.T. scores (Verbal, Mathematics, and Average) and the three criteria are further delineated by Tables 2-4. Assigning students to three equal stanine-intervaled groups on the basis of S.A.T. Verbal and S.A.T. Average scores produces significant mean differences on the Aural Comprehension and English Proficiency criterion tests, but similar assignment on the basis of S.A.T. Mathematics scores does not, despite significant correlations between S.A.T. (M) and the three criteria.

However, the reverse is true when Combined Index is the criterion. In this case S.A.T. (M) and S.A.T. Average scores produce significant mean differences while S.A.T. (Verbal) scores do not.

Therefore, pending the outcome of the multiple regression analysis, it would seem desirable, for estimating criterion performance on Aural Comprehension, to use the S.A.T. (Average) and English Structure scores, while using S.A.T. (Verbal) and English Structure scores for estimating criterion performance on English Proficiency.. For estimating Combined Index (bearing in mind that this criterion will vary as subjects entering into the index change), High School

Grade Average and S.A.T. (Mathematics) scores appear most predictive. These conclusions should be regarded as "educated hypotheses" until multiple regression analysis confirms or rejects these formulations, and assigns weights to contributing variables.

Sometimes significant statistical differences mask inconsequential or meaningless real differences in the population. In the present case, however, the significant statistical differences confirm meaningful criterion differences in the student population, as one may see by examining Tables 2-4. Table 2, for example, shows that the difference between High School Grade Average Groups A and C, on the Combined Index criterion is 3.17-2.10, or 1.07 index points. This is not a qualitatively inconsequential difference. Similarly, Table 3 shows that the difference between S.A.T. (Average) Groups A and C on the Aural Comprehension criterion is (in terms of percentiles) 83-62, or 21 percentile points, again not a qualitatively inconsequential difference. The difference between these groups is even more pronounced for the S.A.T. (V) groups with English Proficiency as the criterion (Table 5). In this latter case, Group A scores at the 77th percentile, while Group C scores at the 47th percentile.

Both the correlational and "t" test analyses point to no differences between males and females on any of the criteria used in this study.

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Table 1

Correlations Among Twelve Predictor and Three Criterion Variables

	Criterion Variables		
Predictor Variables	Aural Comprehension	English Proficiency	Combined Index
S.A.T. (V)	.437**	.701**	.434**
S.A.T. (M)	.676**	.415**	.513**
S.A.T. (Av)	.628**	.634**	.508**
Aural Comprehension	.614**	.683**	.059
English Structure	.751**	.789**	.401*
H.S. Grade Average	.330*	.298	.584**
Months in U.S.	.226	.158	.020
Type of School in P.R.	.218	.150	.069
Months Since H.S. Grad.	.187	.258	.192
Age	.098	.323*	− .136
Living Arrangement	− .131	− 0.188	.008
Sex	.060	− .148	.225

* Sig. at .05 level
** Sig. at .01 level

Table 2

Comparison of Means of Three Groups,

Eleven Predictor Variables - Combined Index Criterion

	MEANS			
Predictor	Group A	Group B	Group C	F
S.A.T. (V)	2.97	2.71	2.22	2.86
S.A.T. (M)	3.18	2.63	2.14	6.29*
S.A.T. (Av)	3.14	2.70	2.13	5.83*
Aural Comprehension	2.62	2.57	2.82	0.30
English Structure	2.77	2.58	2.51	0.40
H.S. Grade Average	3.17	2.61	2.10	6.82*
Months in U.S.	2.44	2.85	2.53	1.23
Type of School in P.R.	2.53	2.61	2.83	0.51
Months Since H.S. Grad.	2.65	2.64	2.65	0.00
Age	2.56	2.59	2.79	0.32
Living Arrangement	2.46	2.76	2.48	0.68

* Sig. at .05 level (4.08)
** Sig. at .01 level (7.31)

Table 3

Comparison of Means of Three Groups,

Eleven Predictor Variables - Aural Comprehension Criterion, Raw Score
(Percent correct equivalent to each mean-shown in parenthesis)

	MEANS			
Predictor	Group A	Group B	Group C	F
S.A.T. (V)	49.82 (83)	42.43 (71)	38.50 (64)	10.17**
S.A.T. (M)	47.08 (78)	43.15 (72)	39.60 (66)	3.39
S.A.T. (Av)	49.82 (83)	43.20 (72)	37.45 (62)	13.28**
Aural Comprehension	47.33 (79)	42.88 (71)	38.50 (64)	5.80*
English Structure	46.75 (78)	44.29 (74)	35.89 (60)	9.91**
H.S. Grade Average	45.55 (76)	43.38 (72)	41.20 (69)	0.97
Months in U.S.	43.00 (72)	45.58 (76)	40.18 (67)	2.14
Type of School in P.R.	41.71 (70)	43.13 (72)	45.62 (76)	1.03
Months Since H.S. Grad.	45.09 (75)	43.70 (73)	41.27 (69)	0.81
Age	43.38 (72)	43.10 (72)	43.93 (73)	0.05
Living Arrangement	44.43 (74)	43.81 (73)	41.56 (69)	0.40

* Sig. at .05 level (4.08)
** Sig. at .01 level (7.31)

Table 4

Comparison of Means of Three Groups

Eleven Predictor Variables - English Proficiency Criterion, Raw Score
(Percent correct equivalent to each mean-shown in parenthesis)

	MEANS			
Predictor	Group A	Group B	Group C	F
S.A.T. (V)	115.73 (77)	84.86 (56)	69.80 (47)	19.31**
S.A.T. (M)	97.83 (65)	92.05 (61)	73.80 (49)	3.26
S.A.T. (Av)	111.82 (75)	87.35 (58)	70.55 (47)	12.90**
Aural Comprehension	101.00 (67)	89.65 (60)	71.40 (48)	5.50*
English Structure	99.81 (67)	91.53 (61)	66.67 (44)	7.22*
H.S. Grade Average	94.45 (63)	88.33 (59)	85.90 (57)	0.35
Months in U.S.	86.83 (58)	98.26 (66)	76.73 (51)	3.16
Type of School in P.R.	84.14 (56)	90.73 (60)	93.38 (62)	0.52
Months Since H.S. Grad.	95.00 (63)	90.15 (60)	82.27 (55)	0.78
Age	98.75 (66)	88.55 (59)	85.14 (57)	0.82
Living Arrangements	100.14 (67)	88.00 (59)	84.89 (57)	0.89

* Sig. at .05 level (4.08)
** Sig. at .01 level (7.31)

Table 5

Comparison of Male and Female Means on Three Criterion Variables

(Percent correct equivalent to each raw score mean - shown in parenthesis)

Criterion Variable	Male N=25	Female N=20	t
Aural Comprehension	39.6 (66)	41.7 (70)	0.54 n.s.
English Proficiency	85.2 (57)	81.2 (54)	0.40 n.s.
Combined Index	2.49	2.84	1.51 n.s.

n.s. non-significant at .05 level.

APPENDIX B

Profile Data for Students Admitted September, 1969

(Residence: 1=alone 2=married, 3=parents 4=relatives)

Students	M	F	Age	Country	Field of Interest	Time in USA	H.S. Average	SAT Scores Verb.	SAT Scores Math	Psych. Score	Residence 1	2	3	4
1.	x		22	PR	LA & S	8 mo.	1.75	483	460	0			x	
2.	x		22	PR	Socio	2 yr.	2.50	474	397		x			
3.		x	20	PR	-	1 yr.	2.8	625	407					x
4.	x		21	PR	-	2½yr.	2.0*	432	470	8				x
5.	x		22	PR	Math or Eng.Tchr.	8 mo.	2.0	357	449					x
6.		x	21	PR	Soc.Stud.	9 mo.	2.87	391	428	9				x
7.	x		23	PR	-	6 mo.	2.03	549	439	15				x
8.		x	21	PR	pedogogia	1 mo.	2.5	658	386					x
9.		x	19	PR	soc.wkr.	6 mo.	2.85	591	617					x
10.		x	24	PR	nurse	1 yr.	2.3	483	512	0	x			
11.	x		23	PR	business	2 yr.	1.33	424	449	14	x			
12.	x		25	PR	-	8 yr.	1.25	382	449		x			
13.	x		22	PR	-	2½yr.	3.66*	767	638			x		
14.		x	21	PR	soc.wkr.	1 yr.	1.63	407	449					x
15.		x	19	PR	teacher	1 yr.	2.46	357	481	0			x	
16.		x	28	Cuba	Art and Science	9 mo.	2.33*	491	481	0			x	
17.	x		19	PR	Medicine	3 yr.	2.0*	399	449	3		x		
18.		x	23	SanDom	Medicine	3 yr.	74.6%	483	407					x
19.	x		24	PR	Acc	2 yr.	1.45	432	565	3		x		
20		x	28	PR	Medicine or socwkr	3 yr	3.3	616	533	0		x		

* Equiv.Test

Profile Data for Students Admitted September, 1969

(Residence: 1=alone 2=married, 3=parents 4=relatives)

Students	M	F	Age	Country	Field of Interest	Time in USA	H.S. Average	SAT Scores Verb.	SAT Scores Math	Psych. Score	Residence 1	2	3	4
21.	x		26	PR	-	1 yr.	3.8	516	449	1			x	
22.	x		26	PR	Spanish teacher	2 mo.	2.0	441	407	0	x			
23.	x		19	PR	-	1 yr.	2.2	524	491	5				x
24.		x	21	PR	-	6 mo.	2.34	441	502	3				x
25.		x	21	PR	social worker		2.36	391	449	4		x		
26.	x		26	PR	Spanish teacher	6 mo.	2.7	457	418	4				x
27.	x		22	PR	Bus.Adm. or Soc.	5 mo.	2.0	533	418	0		x		
28.		x	28	PR	Social worker	1 yr.	2.3	424	376	2		x		
29.		x	19	PR	Bus.Adm.	6 mo.	2.39	483	481				x	
30.	x		26	PR	Bus.Adm.	2 yr.	1.33*	416	491	2				x
31.		x	20	Ecuador	Eng.	1 yr.	9=very good	466	365	0		x		
32.		x	22	PR	Sec'y	1½yr.	2.52	483	481	0			x	
33.	x		20	Ecuador	Bus.Adm.	1½yr.	9=very good	717	544	7	x			
34.		x	28	PR	Span.	3 yr.	3.77	675	544	1				x
35.		x	21	PR	BA in Soc.	6 mo.	2.0	474	397	1	x			
36.		x	20	PR	Medicine	7 mo.	2.96	616	524	0				x
37.		x	21	PR	Bookkeep.	2 yr.	1.52	558	502	0	x			
38.		x	19	PR	Teacher	5 mo.	2.73	516	554	0			x	
39.		x	21	PR	Social Worker	1½yr.	3.07	441	428	6				x
40.	x		30	PR	Law	3½yr.	3.0	449	481	0		x		

* Equiv. Test

Provile Data for Students Admitted September, 1969

(Residence: 1=alone 2=married, 3=parents 4=relatives)

Students	M	F	Age	Country	Field of Interest	Time in USA	H.S. Average	SAT Scores Verb.	SAT Scores Math	Psych. Score	Residence 1	2	3	4
41	x		19	PR	Bus.Adm.	1 mo.	2.8	541	607	0				x
42	x		19	PR	Music	1 yr.	2.25	508	428	5			x	
43.		x	18	PR	Teacher Soc.wkr.	8 mo.	2.19	608	481	4			x	
44.		x	20	San.Dom.	Natural Sciences	21 mo.	2.00*	574	449	2			x	
45.		x	19	PR	Sec'y	5 mo.	1.61	432	502	0			x	

*Equiv. Test

DISTRIBUTION OF S.A.T. SCORES FOR STUDENTS ADMITTED SEPTEMBER 1969

SAT Total	M	F	Total
1400-1300	1	0	1
1200-1100	2	4	6
1099-1051	0	3	3
1050-1000	1	3	4
999-950	3	4	7
949-900	5	2	7
899-850	4	4	8
849-800	4	5	9
Totals	20	25	45

APPENDIX C

BRONX COMMUNITY COLLEGE
Of The City University of New York

FINANCIAL REPORT
Bilingual Program

July 1, 1968 through June 30, 1969

Receipts			
Bronx Community College funds		$79,863.58	
Ford Foundation Grant funds		95,000.00	
		174,863.58	
Unexpended Cash Balance, June 30,1969 Ford Foundation Grant		51,053.51	
			$123,810.07
Expenditures (Direct Costs)			
Personal Services		60,444.89	
Fringe Benefits (Estimated Costs)			
Health Insurance	866.09		
Social Security	2,828.18		
Retirement Program Costs	3,799.67		
Faculty Welfare Program Costs	843.75		
		8,337.69	
Student Assistance			
General Fees	2,238.00		
Books and Supplies	2,145.36		
Stipends	46,081.00		
		50,464.36	
Equipment		2,832.04	
Instructional Equipment and Supplies			
Testing and Test Materials	723.08		
Publications and Supplies	534.63		
Miscellaneous	67.08		
		1,324.79	
Travel Expense		406.30	
Total Expenditures (Direct Costs)			$123,810.07

Per Student Cost = $123,810.07 ÷ 45 = $2,751.34

Submitted by

Joseph E. Berman

Joseph E. Berman, Fiscal Officer
Bronx Community College